

California Milk Pricing Formulas

California's milk marketing program establishes minimum prices that processors must pay for Grade A milk received from dairy farmers. For the purposes of setting prices, there are five classes of milk that are established depending on the type of dairy product. In California's milk pricing system. The most significant factors in determining the minimum price that processors must pay for milk are the wholesale commercial market prices for four dairy product commodities:

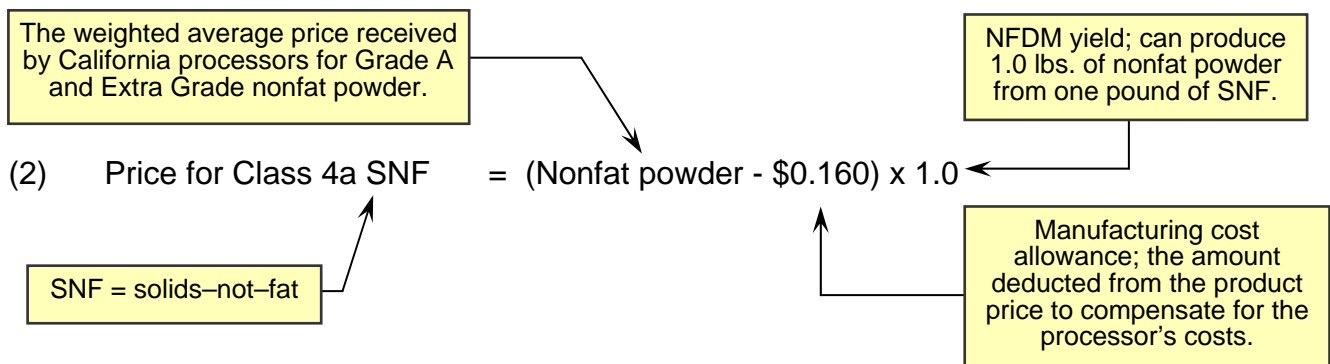
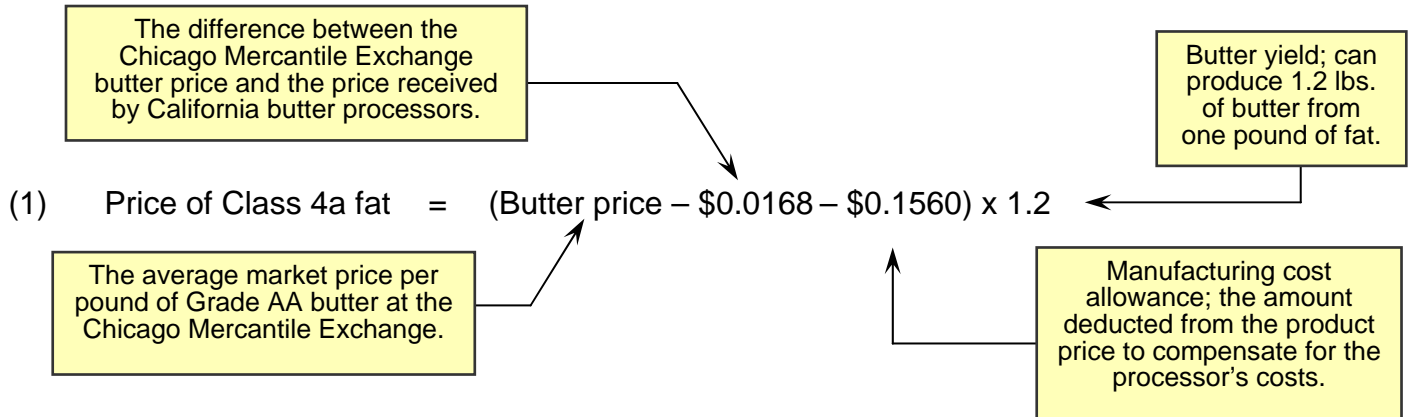
1. The simple average spot price for Grade AA butter at the Chicago Mercantile Exchange (CME),
2. The California weighted average price (CWAP) for nonfat dry milk (NFDM) as reported by the California Department of Food and Agriculture (Department),
3. The simple average spot price for block Cheddar cheese at the Chicago Mercantile Exchange (CME), and
4. The simple average of the mostly price for Western dry whey (WDW) as reported by Dairy Market News (DMN).

Milk consists of three basic components: butterfat (fat), solids-not-fat (SNF), and fluid carrier (water). Prices are assigned to all three components in the determination of the Class 1 milk price. Only the fat and SNF components are used to set the Class 2, 3, 4a, and 4b milk prices. Because prices are determined for individual milk components, a simple calculation must be performed to obtain the implied hundredweight price for representative milk testing 3.5% fat and 8.7% SNF. Class 1, 4a, and 4b prices are adjusted monthly, and Class 2 and 3 prices are adjusted bimonthly.

The Five Classes of Milk

- Class 1: Milk used in fluid products, including whole, reduced fat, lowfat, and nonfat milks.
- Class 2: Milk used in heavy cream, cottage cheese, yogurt, and condensed products.
- Class 3: Milk used in ice cream and other frozen products.
- Class 4a: Milk used in butter and dry milk products, such as nonfat dry milk.
- Class 4b: Milk used in cheese, other than cottage cheese, and whey products.

Class 4a Price Formula (butter and dry milk products)



- (3) Class 4a price per 100 pounds of standardized milk (@3.5% fat and 8.7% SNF)
- = (3.5 x price of Class 4a fat) + (8.7 x price of Class 4a SNF)

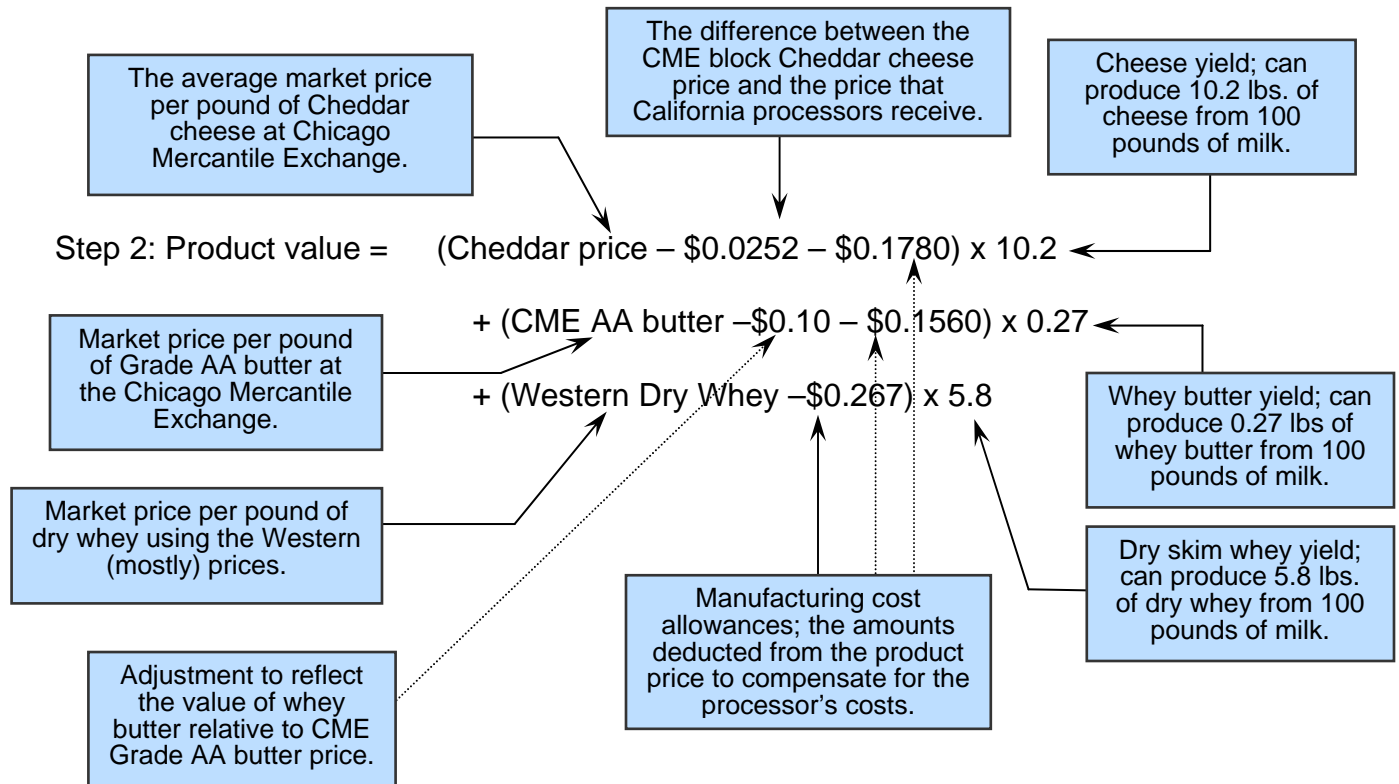
For any month in which the Secretary implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 4a price shall be increased by:

- \$0.0032 per pound of fat, and
- \$0.0013 per pound of SNF

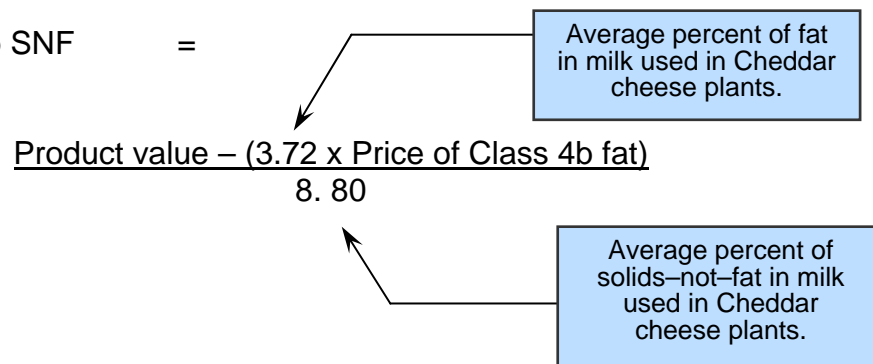
Class 4b Price Formula (cheese)

The Class 4b price calculation consists of four steps. The first step sets the fat component price in 4b milk to that of 4a milk. The second step determines the product value of cheese and Grade B butter per hundred pounds of milk. The third step identifies the 4b SNF price. The fourth step converts the component prices to a standardized milk price.

Step 1: Price of Class 4a fat = Price of Class 4b fat



Step 3: Price of Class 4b SNF =



Step 4: Class 4b price per 100 pounds of standardized milk (@3.5% fat and 8.7% SNF)

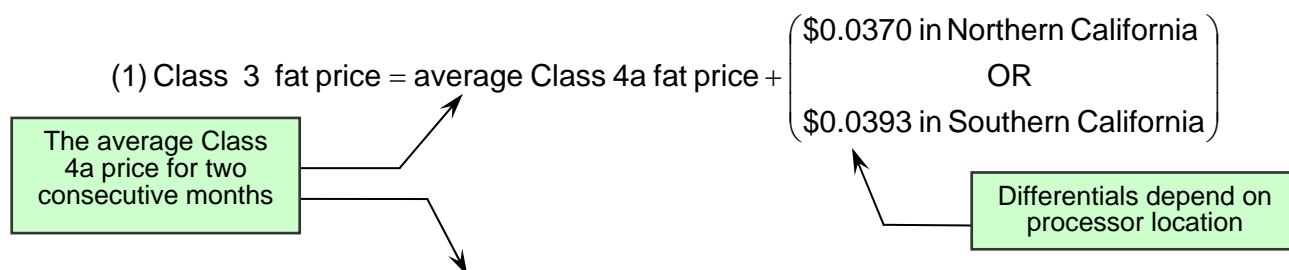
$$= (3.5 \times \text{price of Class 4b fat}) + (8.7 \times \text{price of Class 4b SNF})$$

For any month in which the Secretary implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 4b price shall be increased by:

- \$0.0032 per pound of fat, and
- \$0.0013 per pound of SNF

Class 3 Price Formula (frozen dairy products)

Class 3 prices are established on a bi-monthly basis prior to the beginning of each even month. For example, the February–March pricing period for Class 3 milk uses the average Class 4a component prices for December and January.



$$(2) \text{ Class 3 SNF price} = \text{average Class 4a SNF price} + (\$0.0586 \text{ throughout California})$$

$$(3) \text{ Class 3 price per 100 pounds of standardized milk (@3.5\% fat and 8.7\% SNF)}$$

$$= (3.5 \times \text{price of Class 3 fat}) + (8.7 \times \text{price of Class 3 SNF})$$

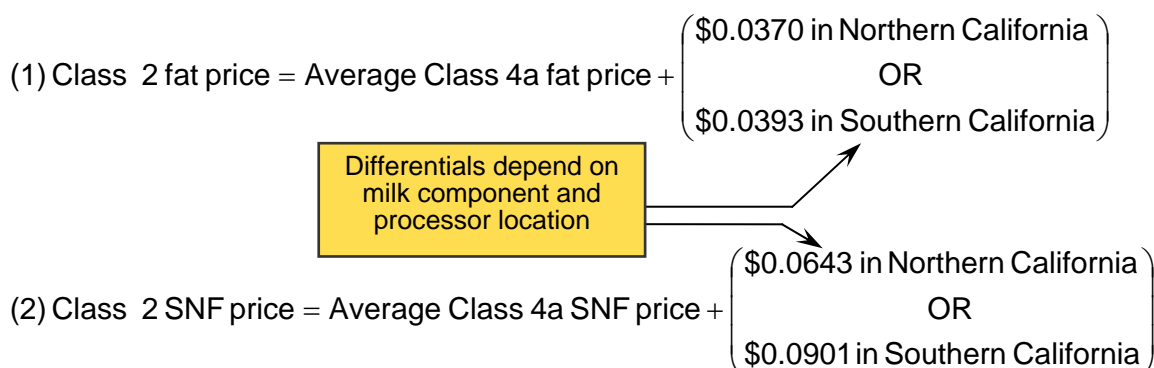
For any month in which the Secretary implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 3 price shall be increased by:

- \$0.0032 per pound of fat, and
- \$0.0013 per pound of SNF

Class 2 Price Formula

(sour cream, heavy cream, cottage cheese, and yogurt)

Like the Class 3 prices, Class 2 prices are established on a bi-monthly basis prior to the beginning of each even month. For example, the February–March pricing period for Class 2 milk uses the average Class 4a component prices for December and January.



$$(3) \text{ Class 2 price per 100 pounds of standardized milk (@3.5\% fat and 8.7\% SNF)}$$

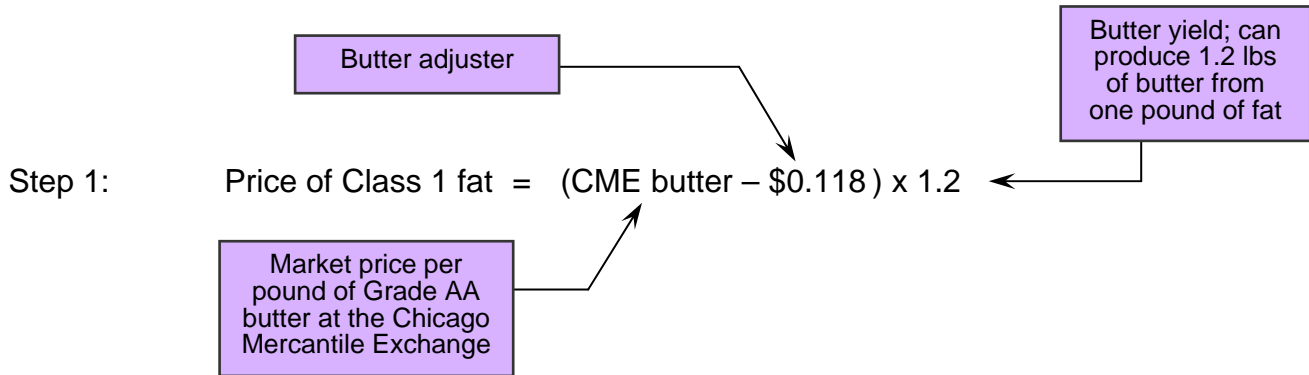
$$= (3.5 \times \text{price of Class 2 fat}) + (8.7 \times \text{price of Class 2 SNF})$$

For any month in which the Secretary implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 2 price shall be increased by:

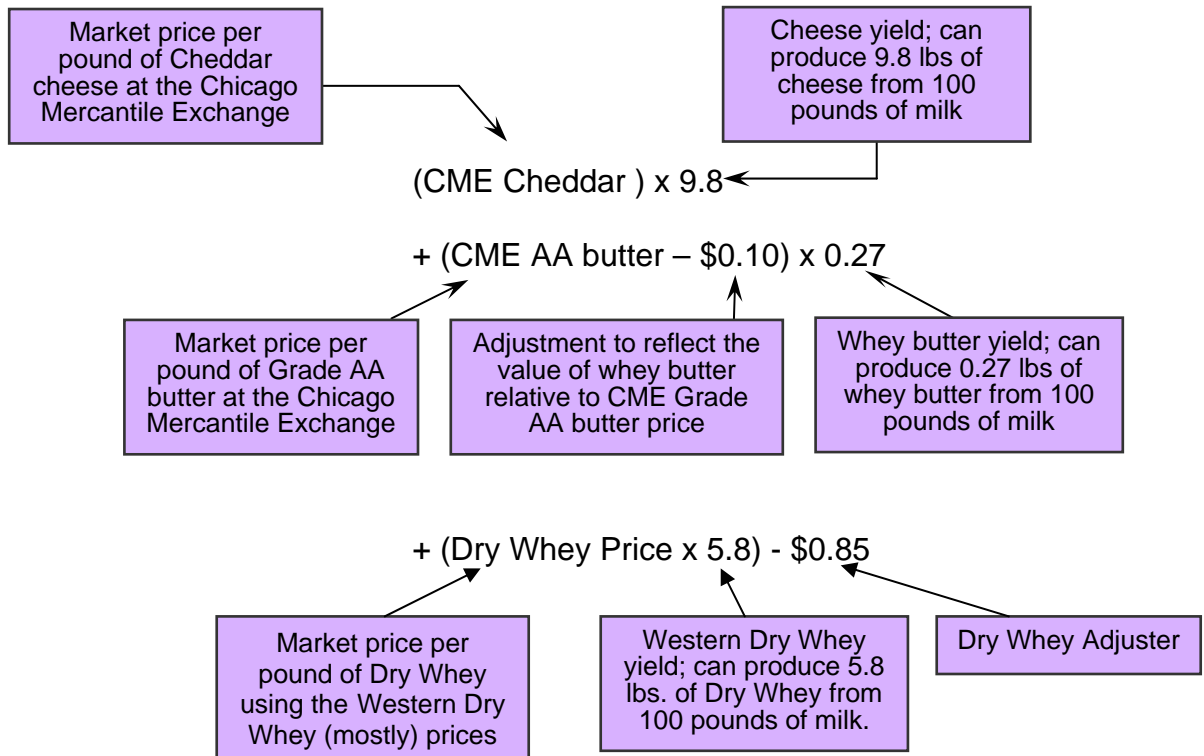
- \$0.0032 per pound of fat, and
- \$0.0013 per pound of SNF

Class 1 Price Formula for Fluid Milk Products

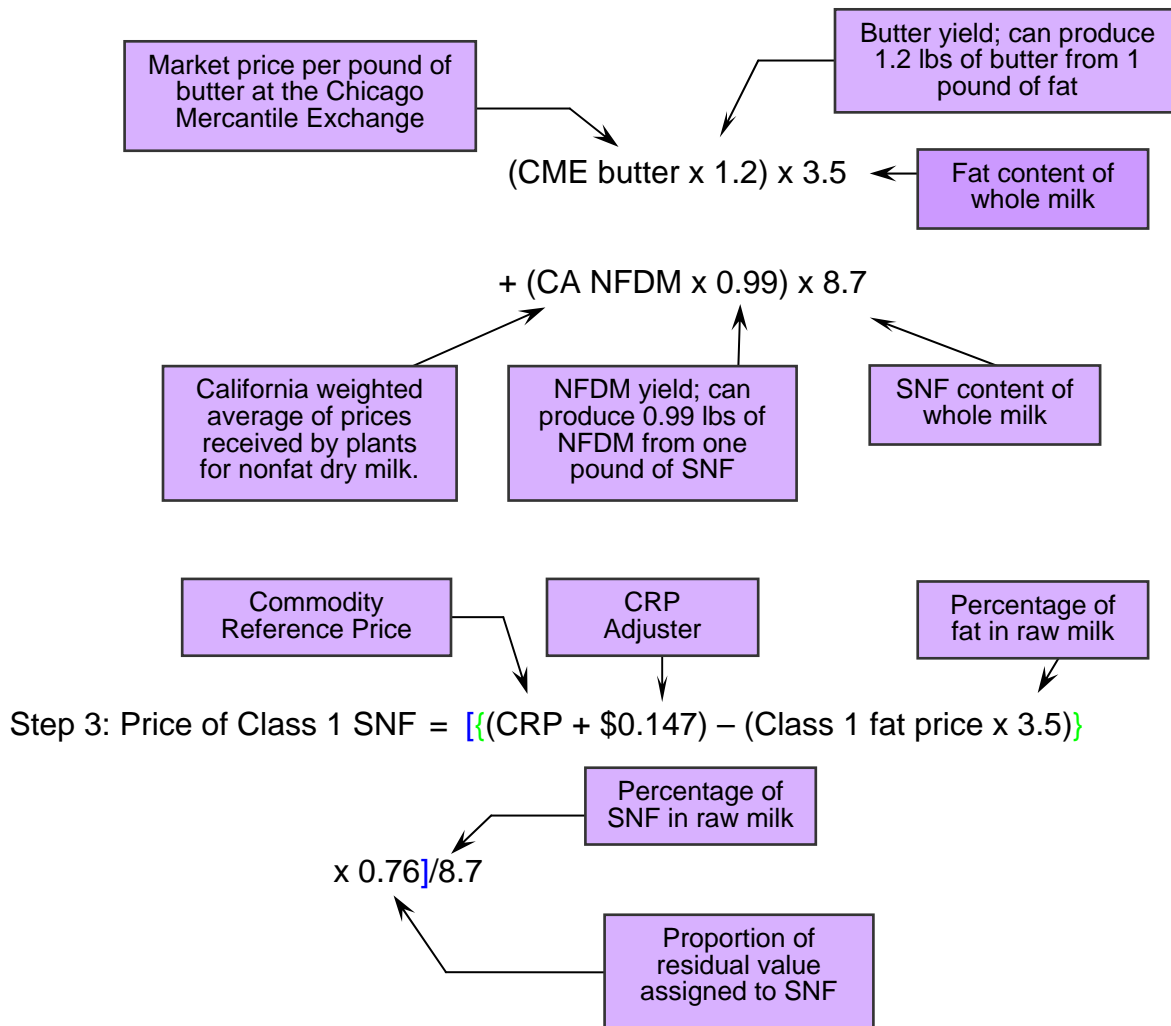
Determining the price for fluid milk products involves several steps. The Class 1 fat price in the fluid milk pricing formula is set directly and uses the Chicago Mercantile Exchange (CME) butter price with an adjuster. The SNF and carrier prices are calculated as residuals. They rely on a basic price mover called the commodity reference price (CRP) which is based off the higher of the price for CME Cheddar cheese and Mostly Western Dry Whey or the CME Grade AA butter and California weighted average price for nonfat dry milk. The value of the Class 1 fat price is subtracted from the CRP and the remaining residual value is allocated to SNF and carrier. Once the component prices have been assigned to fat, SNF, and fluid carrier portions of milk, these component prices are converted to a standardized hundredweight milk price.



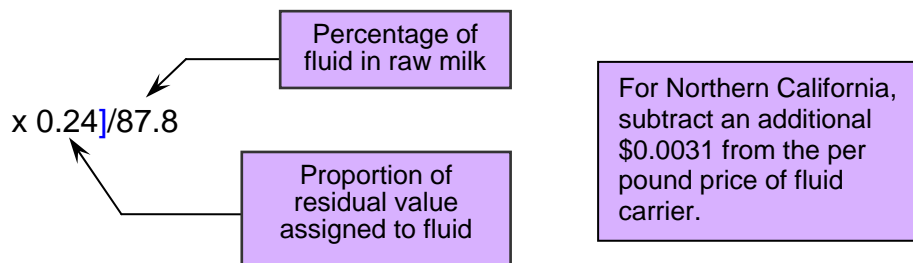
Step 2: Commodity Reference Price = the **higher of** two price calculations:



OR



Step 4: Price of Class 1 fluid = $\{[(\text{CRP} + \$0.147) - (\text{Class 1 fat price} \times 3.5)] \times 0.24\} / 87.8$



Step 5: Class 1 price per 100 pounds of milk (@3.5% fat and 8.7% SNF)

$$= (3.5 \times \text{Class 1 fat}) + (8.7 \times \text{Class 1 SNF}) + (87.8 \times \text{Class 1 carrier})$$

For any month in which the Secretary implements the collection of charges for the Milk Producers Security Trust Fund, the minimum Class 1 price shall be increased by:

- \$0.0017 per pound of fat,
- \$0.0009 per pound of SNF, and
- \$0.0001 per pound of carrier